

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2021
(Regular/Improvement/Supplementary)**

**ZOOLOGY
FZOL3C08 - IMMUNOLOGY & CYTOGENETICS**

Time: Three Hours

Maximum Weightage: 30

Part A: All questions can be answered. Each carries *two* weightage (Ceiling 6 weightage).

1. State the factors influencing immunogenicity.
2. Comment on RIA.
3. What is antibody-dependent cellular cytotoxicity?
4. Give a short account on transplantation antigens.
5. Mention the role of caspases in apoptosis.
6. What are cadherins?
7. Comment on various genes involved in apoptosis.

Part B: All questions can be answered. Each carries *four* weightage (Ceiling 12 weightage).

8. Discuss the mechanisms of antigen processing and presentation.
9. Explain the events of T cell activation and differentiation.
10. What are primary immunodeficiency diseases? Discuss in detail.
11. Differentiate primary, secondary and tertiary organs of immune system and add a note on their immunological significance.
12. Give a detailed account on different hypersensitivity reactions.
13. Explain the mechanism and application of agglutination reaction.
14. Describe the composition of extracellular matrix.

Part C: All questions can be answered. Each carries *six* weightage (Ceiling 12 weightage).

15. Discuss the complement activation and regulation in detail. Add a note on the functions of complement system.
16. Write an essay on the structure, classes and functions of antibody molecule.
17. What are autoimmune diseases? Elaborate their immunological basis and treatment.
18. Explain cell signalling through G protein coupled receptors.